Wound Care Analysis Report

# Patient Information

**Patient Demographics:**Age: 42.0 years  
Sex: Male  
BMI: 40.6

**Diabetes Status:**Type: T2DM  
HbA1c: nan%

# Analysis Results

**Wound Healing Trajectory:  
The wound has shown a general trend of improvement, with a decrease in size from 24.8cm² to 2.4cm² over the course of approximately 5 months. The tissue characteristics have also changed from pale to pink/red, indicating better perfusion and oxygenation. The exudate volume and viscosity have fluctuated, but overall, there has been a decrease in exudate volume. The wound has been consistently covered with tissue, which is a positive sign.**

However, there have been some fluctuations in the wound's progress. Between 09-13-2024 and 09-18-2024, the wound size increased slightly, and the exudate volume decreased. Then, between 09-24-2024 and 10-02-2024, the wound size decreased, but the exudate volume increased. These fluctuations may indicate that the wound is not healing at a consistent rate.

**Concerning Patterns:  
One concerning pattern is the inconsistent exudate volume and viscosity. High-volume exudate with medium viscosity (as seen on 09-24-2024) may indicate infection or inflammation, which could hinder the healing process. Additionally, the low oxygenation readings (below 80%) on some visits (e.g., 10-14-2024 and 02-10-2025) may indicate inadequate tissue perfusion, which could slow down the healing process.**

**Care Recommendations:  
Based on the wound type, characteristics, and healing progress, the following care recommendations are made:**

**1. Continue with Medihoney patches: The current care plan has shown some effectiveness, and Medihoney patches are known for their antibacterial and moisturizing properties, which can aid in wound healing.  
2. Monitor exudate and adjust absorptive dressings as needed: The inconsistent exudate volume and viscosity require close monitoring. Absorptive dressings should be adjusted to manage excess exudate and prevent maceration.  
3. Optimize wound environment: Ensure the wound is kept moist, but not excessively so, to promote healing. Consider using a hydrogel or foam dressing to maintain a balanced moisture environment.  
4. Regularly assess for signs of infection: Monitor for increased redness, swelling, warmth, or purulent discharge, which could indicate infection. If suspected, consider obtaining a wound culture and adjusting the treatment plan accordingly.**

**Complication Risks:  
Given the patient's profile and wound characteristics, there is an increased risk of:**

**1. Infection: The wound's location on the plantar forefoot, high exudate volume, and inconsistent tissue characteristics increase the risk of infection.  
2. Delayed healing: The patient's history of type 2 diabetes mellitus (T2DM) and high BMI may contribute to delayed wound healing due to potential issues with tissue perfusion and oxygenation.  
3. Pressure ulcers: The wound's location on the plantar forefoot increases the risk of pressure ulcers, especially if the patient has limited mobility or uses orthotics that may put pressure on the area.**

**Significance of Sensor Measurements:  
The sensor measurements provide valuable insights into the wound's healing progress:**

**1. Oxygenation: Low oxygenation readings (below 80%) may indicate inadequate tissue perfusion, which could slow down the healing process. Higher oxygenation readings (above 85%) are generally associated with faster healing.  
2. Temperature: Temperature readings can help identify signs of infection (increased temperature) or poor perfusion (decreased temperature).  
3. Impedance: Impedance measurements can provide information about tissue moisture and hydration. High impedance values may indicate dehydration, while low values may indicate over-hydration.**

Overall, the wound has shown some progress, but close monitoring and adjustments to the care plan are necessary to ensure optimal healing and prevent complications. Regular assessments of the wound, exudate, and tissue characteristics, as well as sensor measurements, will help guide the treatment plan and minimize the risk of complications.

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